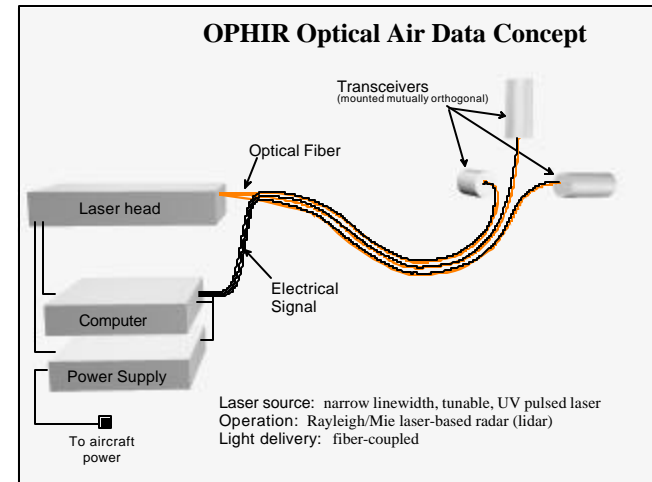


Rayleigh/Mie Lidar for Non-intrusive Measurement of Aircraft Air Data Parameters

PI: Dr. Loren D. Nelson / OPHIR Corporation, Littleton CO
 Proposal No.: 01-II A7.03-8908

Description and Objectives

- ❖ Problem – current aircraft air data probes suffer safety and performance problems
- ❖ Objective – replace all air data probes with a non-intrusive, optical, remote-sensing probe



Approach

- ❖ Laser scattering from air molecules and aerosols – works even when atmosphere is “clean”

Subcontractors/Partners

- ❖ The Boeing Company, Flight Test Div.
- ❖ Goodrich Aerospace, Sensors Division
- ❖ EADS(Airbus), Corp. Research Center

Schedule and Deliverables

- ❖ 17 months – development effort
- ❖ 23 months – flight test program end
- ❖ 24 months – final report + hardware

NASA & Commercial Applications

- ❖ NASA – flight test sensors
- ❖ Military – low observable aircraft
- ❖ Commercial – flight test sensors